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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/820,820  | 03/30/2001  | Tuyoshi Ishikawa     | P20468              | 4491             |
| 7055  | 7590        | 10/05/2004           | EXAMINER            |                  |
| GREENBLUM & BERNSTEIN, P.L.C.<br>1950 ROLAND CLARKE PLACE<br>RESTON, VA 20191 |             |                      | NGUYEN, TU T        |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2877                |                  |

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                 |                         |  |
|------------------------------|---------------------------------|-------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b>          | <b>Applicant(s)</b>     |  |
|                              | 09/820,820                      | ISHIKAWA, TUYOSHI       |  |
|                              | <b>Examiner</b><br>Tu T. Nguyen | <b>Art Unit</b><br>2877 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 December 2001.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3-9,11-13 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3-9,11-13 and 16-21 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. 08/916,408.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Response to Arguments***

Applicant's arguments with respect to claims 1,3-9,11-13,16-21 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-9,11-13,16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (5,048,967).

With respect to claims 1,9,13, Suzuki discloses a system for detecting a pattern. The system comprises: a minute-area light source 21 (fig 5) that causes an illumination light beam to be incident on an object surface 29 (fig 5) having a pattern formed thereon as an object to be read; an objective lens 27 (fig 5) that converges a light beam carrying the information of the pattern; a spatial filter 32 (fig 5) having a shading region O2 (fig 5) that shades a portion of the light beam that forms an image (column 5, lines 40-45) of said light source from the light beam, said spatial filter shielding a specularly reflected component of the light beam (column 5, lines 36) and forming an image by the diffusely reflected component of the light beam.

Suzuki does not explicitly disclose an imaging lens. Since Suzuki discloses using a photo-detector 33 (fig 5) (column 5, lines 30-35) for taking an image of the light beam, it would have been obvious that Suzuki's photo-detector would have to have an image lens in order to take the image of the light beam.

With respect to claims 3-4, 8, 11, 16-18, it would have been obvious a design choice to modify the position of the spatial filter or the objective lens as claimed for different testing purposes.

With respect to claims 5, 12, Suzuki discloses that the object surface 29 (fig 5) is a reflection surface, said light source 21 (fig 5) is positioned such that the illumination light beam emitted from said light source reaches the object surface through said objective lens 27 (fig 5) and the light beam reflected at the object surface passes through said objective lens to be incident on said spatial filter 32 (fig 5).

With respect to claims 6-7, Suzuki discloses the objective lens 27 (fig 5) positioned perpendicularly to the object surface (fig 5) and the photo-detector 33 (fig 5) positioned at the imaging position (fig 5).

Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (5,048,967) in view of Hagiwara (5,838,433).

With respect to claim 19, Suzuki does not explicitly disclose the claimed filter. Hagiwara discloses using a spatial filter S1 (fig 1) having a shading region that shades a portion of the light beam that forms an image of the light source, said spatial filter being configured so that at least a central portion of the light beam is blocked by the spatial filter (abstract). It would have been obvious to modify Suzuki with the filter as taught by Hagiwara to facilitate the filtering process.

With respect to claim 20, Suzuki discloses the claimed filter. Refer to discussion in claim 1 above the filter.

With respect to claim 21, refer to discussion in claim 3 above for the position of the filter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T. Nguyen whose telephone number is (571) 272-2424. The examiner can normally be reached on T-F 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley Jr. can be reached on (571) 272-2800 Ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tu T. Nguyen  
Primary Examiner  
Art Unit 2877

09/30/2004